# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/608,996 | 06/30/2000 | Robert W. Faber | 42390.P8384X | 1672 |

7590      10/06/2004

Aloysius T C AuYeung
Blakely Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard Seventh Floor
Los Angeles, CA 90025

| EXAMINER |
|---|
| HOFFMAN, BRANDON S |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2136 | |

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/608,996 | FABER ET AL. |
| | Examiner | Art Unit |
| | Brandon Hoffman | 2136 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on <u>14 July 2004</u>.

2a)☒ This action is **FINAL**.                2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) <u>1-16</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-16</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

## DETAILED ACTION

1.      Claims 1-16 are pending in this office action.

2.      Applicant's arguments, filed July 14, 2004, have been fully considered but they are not persuasive.

### Rejections

3.      The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### Claim Rejections - 35 USC § 103

4.      Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manabu et al. (U.S. Patent No. 6,453,304) in view of Ueda et al. (U.S. Patent No. 6,289,102).

Regarding claim 1, Manabu et al. teaches a system comprising:

- A video source device providing n bits of copy control information to a video recording device (fig. 1 and 3);

- Each of the video source and recording devices practicing a symmetric ciphering/deciphering process employed by the video source and recording devices to protect video transmitted from the video source device to the video recording device (fig. 1, ref. num 304 to 303 and fig. 3, ref. num 402 to 403).

Manabu et al. does not teach each of the video source and recording devices incorporating said n bits of copy control information as part of an initialization value, and initializing a cipher unit with said initialization value.

Ueda et al. teaches each of the video source and recording devices incorporating said n bits of copy control information as part of an initialization value (col. 8, lines 1-35), and initializing a cipher unit with said initialization value (fig. 2a and 2b).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine each of the video source and recording devices incorporating said n bits of copy control information as part of an initialization value, and initializing a cipher unit with said initialization value, as taught by Ueda et al., with the system of Manabu et al. It would have been obvious for such modifications because the incorporation of copy control bits provides a selection of possible starting encryption values, fig. 2 of Ueda. This allows different possibilities of encryption based not only on a changing key, but also on changing copy control information.

Regarding claim 5, Manabu et al. teaches a video apparatus comprising:

- A cipher unit to generate a sequence of ciphering bits to cipher video to be transmitted by the video apparatus to a video recording device (fig. 1, ref. num 303), and

- A communication interface coupled to the video recording device to provide said

    n-bit copy control information to said video recording device (fig. 1, ref. num 307).

Manabu et al. does not teach the cipher unit including a register to be initialized

by each of the video apparatus and the video recording device with an initialization

value incorporating n bits of copy control information.

Ueda et al. teaches the cipher unit including a register to be initialized by each of

the video apparatus and the video recording device with an initialization value

incorporating n bits of copy control information (fig. 2a and 2b).

It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to combine the cipher unit including a register to be initialized by

each of the video apparatus and the video recording device with an initialization value

incorporating n bits of copy control information, as taught by Ueda et al., with the

apparatus of Manabu et al. It would have been obvious for such modifications because

the incorporation of copy control bits provides a selection of possible starting encryption

values, fig. 2 of Ueda. This allows different possibilities of encryption based not only on

a changing key, but also on changing copy control information.

Regarding claim 8, Manabu et al. teaches a video apparatus comprising:

- A cipher unit to generate a sequence of deciphering bits to decipher ciphered video to be received from a video source device (fig. 3, ref. num 403), and

- A communication interface coupled to the video source device to receive said n-bit copy control information from said video source device (fig. 3, ref. num 401).

Manabu et al. does not teach the cipher unit including a register to be initialized by each of the video apparatus and the video source device with an initialization value incorporating n bits of copy control information.

Ueda et al. teaches the cipher unit including a register to be initialized by each of the video apparatus and the video source device with an initialization value incorporating n bits of copy control information (fig. 2a and 2b).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the cipher unit including a register to be initialized by each of the video apparatus and the video source device with an initialization value incorporating n bits of copy control information, as taught by Ueda et al., with the apparatus of Manabu et al. It would have been obvious for such modifications because the incorporation of copy control bits provides a selection of possible starting encryption values, fig. 2 of Ueda. This allows different possibilities of encryption based not only on a changing key, but also on changing copy control information.

Regarding claim 11, Manabu et al. teaches in a video source device, a method comprising:

- Providing a video recording device with n-bits of copy control information (fig. 1); and

- Operating said block cipher to generate a key for use by a stream cipher to cipher video to be transmitted to the video recording device (fig. 2, ref. num 3031 and 3032).

Manabu et al. does not teach incorporating said n-bits of copy control information as a part of an initialization value with each of the video source device and the video recording device, and initializing a block cipher with said initialization value.

Ueda et al. teaches incorporating said n-bits of copy control information as a part of an initialization value with each of the video source device and the video recording device (col. 8, lines 1-35), and initializing a block cipher with said initialization value (fig. 2a and 2b).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine incorporating said n-bits of copy control information as a part of an initialization value with each of the video source device and the video recording device, and initializing a block cipher with said initialization value, as taught by Ueda et al., with the device of Manabu et al. It would have been obvious for such

modifications because the incorporation of copy control bits provides a selection of possible starting encryption values, fig. 2 of Ueda. This allows different possibilities of encryption based not only on a changing key, but also on changing copy control information.

Regarding claim 14, Manabu et al. teaches in a video recording device, a method comprising:

- Receiving from a video source device n-bits of copy control information (fig. 3); and

- Operating said block cipher to generate a key for use by a stream cipher to decipher ciphered video received from the video source device (fig. 2, ref. num 3031 and 3032).

Manabu et al. does not teach incorporating said n-bits of copy control information as a part of an initialization value with each of the video recording device and video source device, and initializing a block cipher with said initialization value.

Ueda et al. teaches incorporating said n-bits of copy control information as a part of an initialization value with each of the video recording device and video source device (col. 8, lines 1-35), and initializing a block cipher with said initialization value (fig. 2a and 2b).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine incorporating said n-bits of copy control information as a part of an initialization value with each of the video recording device and video source device, and initializing a block cipher with said initialization value, as taught by Ueda et al., with the device of Manabu et al. It would have been obvious for such modifications because the incorporation of copy control bits provides a selection of possible starting encryption values, fig. 2 of Ueda. This allows different possibilities of encryption based not only on a changing key, but also on changing copy control information.

Regarding claims 2, 6, 9, 12, and 15, the combination of Manabu et al. in view of Ueda et al. teaches said initialization value incorporates said n bits of copy control information as its most significant bits (see col. 4, lines 53-59 of Manabu et al.).

Regarding claim 3, the combination of Manabu et al. in view of Ueda et al. teaches each of said initialization of a cipher unit by said video source and recording devices comprises initializing a register of the cipher unit with the copy control information incorporated initialization value (see col. 3, line 57 to col. 4, line 3 of Manabu et al.).

Regarding claims 4, 7, 10, 13 and 16, the combination of Manabu et al. in view of Ueda et al. teaches said initialization of the block cipher unit comprises initializing a register of a round function of the block cipher (see fig. 2 of Manabu et al.).

## *Response to Arguments*

5.      Applicant argues:

a.      Manabu does not teach each of the video source and recording devices initializing a cipher unit or incorporating copy control information as parts of an initialization value (page 7, last paragraph through page 8, last paragraph).

b.      Ueda does not teach each of the video source and recording devices initializing a cipher unit or incorporating copy control information as parts of an initialization value (page 9).

c.      Dependent claims are allowable based on their dependency on the independent claims (page 10, third paragraph).


Regarding argument (a), examiner disagrees with applicant.  Examiner acknowledges the fact that Manabu does not teach initializing the cipher unit of each device and incorporating copy control information as part of an initialization value. Examiner relied upon Ueda to teach this deficiency of Manabu.

Regarding argument (b), examiner disagrees with applicant.  Ueda shows in figure 2 that the lead-in area contains the copy control information (scramble information in the reference) which cross references to a table to be used for an initialization value. The encryption circuit being initialized by a single stream of copy control information (Manabu) combined with a medium containing scramble information linking to an initialization table for scrambling/descrambling (Ueda), suggests that with each set of user data, a cipher unit (Manabu) with initialized copy control information (Ueda).

Regarding argument (c), examiner disagrees with applicant. Based on the arguments set forth by the examiner for arguments (a) and (b), the dependent claims stand as rejected.

### Conclusion

6.    **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 703-305-4662. However, my new number will be 571-272-3863 after our October 25 move. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BH

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100